

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Currently Amended) The separator according to Claim 4~~4~~, wherein in the open condition, an exit height of the radial gap at the solids discharge openings is greater than a height of the solids discharge openings.

3. (Cancelled)

4. (Currently Amended) The separator according to Claim 1, A separator, comprising:

a rotatable drum having a drum top part, a vertical axis of rotation and a disk stack arranged therein;

a piston slide for opening and closing solids discharge openings in the drum;
a radial gap formed between the drum top part and the piston slide in an open condition of the piston slide; and

at least one annular chamber located on both sides of the radial gap in front of the solids discharge openings in an outer circumference area of the piston slide and the drum top part; and

wherein two radially successive annular chambers are located in the piston slide and in the drum top part and are mutually connected by a bottleneck.

5. (Currently Amended) The separator according to Claim 3~~12~~, wherein the two radially successive annular chambers are symmetrically located with respect to a contact surface of the piston slide on the drum top part in a closed condition of the piston slide.

6. (Cancelled)

7. (Currently Amended) The separator according to Claim 312, wherein one of the radially successive annular chambers is a radially exterior annular chamber and is constructed as a swirl chamber for an exiting stream of solids.

8. (Currently Amended) The separator according to Claim 7, wherein the radially exterior annular chamber has a greater axial dimension than ~~a~~the radially interior annular chamber.

9. (Previously Presented) The separator according to Claim 7, wherein the radially exterior annular chamber has a greater axial dimension than an axial dimension of the solids discharge openings.

10. (Previously Presented) The separator according to Claim 7, wherein in the open condition of the piston slide, the radially exterior annular chamber has an axial dimension which is more than twice as large as an axial dimension of the solids discharge openings.

11. (Currently Amended) The separator according to Claim 612, wherein the radially interior annular chamber starts radially outside a groove for a sealing device in the drum top part or at a corresponding point of the piston slide.

12. (Currently Amended) The separator according to Claim 6, A separator, comprising:

a rotatable drum having a drum top part, a vertical axis of rotation and a disk stack arranged therein;

a piston slide for opening and closing solids discharge openings in the drum;

a radial gap formed between the drum top part and the piston slide in an open condition of the piston slide; and

at least one annular chamber located on both sides of the radial gap in front of the solids discharge openings in an outer circumference area of the piston slide and the drum top part;

wherein two radially successive annular chambers are located in the piston slide and in the drum top part;

wherein one of the radially successive annular chambers is a radially interior annular chamber and is constructed as a nozzle-type fanning-out chamber for an exiting stream of solids; and

wherein the radially interior annular chamber starts radially outside a sealing groove in the drum top part or at the corresponding point of the piston slide at a sharp edge at a radius r_1 , widens to a radius r_2 to a maximal axial dimension H_1 and then narrows to an axial dimension H_4 at a radial point r_3 so that, in the open condition of the piston slide, the nozzle-type fanning-out chamber is created.

13. (Currently Amended) The separator according to Claim 612, wherein the nozzle-type fanning-out chamber has a radial dimension of r_3 minus r_1 , which, in an average open condition, is more than twice as large as a maximal axial dimension H_1 of the fanning-out chamber in the open condition of the piston slide.

14. (Previously Presented) The separator according to Claim 13, wherein the maximal axial dimension H_1 in the open condition is smaller than an axial dimension of the solids discharge openings.

15. (Previously Presented) The separator according to Claim 7, wherein the radially exterior annular chamber has a rounded cross-section, so that liquid is swirled therein.

16. (Previously Presented) The separator according to Claim 14, wherein the maximal axial dimension H_1 in the open condition is 50% smaller than the axial dimension of the solids discharge openings.

17. (New) The separator according to Claim 12, wherein in the open condition, an exit height of the radial gap at the solids discharge openings is greater than a height of the solids discharge openings.

18. (New) The separator according to Claim 4, wherein the two radially successive annular chambers are symmetrically located with respect to a contact surface of the piston slide on the drum top part in a closed condition of the piston slide.

19. (New) The separator according to Claim 18, wherein one of the radially successive annular chambers is a radially interior annular chamber and is constructed as a nozzle-type fanning-out chamber for an exiting stream of solids.

20. (New) The separator according to Claim 18, wherein one of the radially successive annular chambers is a radially exterior annular chamber and is constructed as a swirl chamber for an exiting stream of solids.

21. (New) The separator according to Claim 20, wherein the radially exterior annular chamber has a greater axial dimension than a radially interior annular chamber.

22. (New) The separator according to Claim 20, wherein the radially exterior annular chamber has a greater axial dimension than an axial dimension of the solids discharge openings.

23. (New) The separator according to Claim 20, wherein in the open condition of the piston slide, the radially exterior annular chamber has an axial dimension which is more than twice as large as an axial dimension of the solids discharge openings.

24. (New) The separator according to Claim 19, wherein the radially interior annular chamber starts radially outside a groove for a sealing device in the drum top part or at a corresponding point of the piston slide.

25. (New) The separator according to Claim 19, wherein the nozzle-type fanning-out chamber has a radial dimension of r_3 minus r_1 , which, in an average open condition, is more than twice as large as a maximal axial dimension H_1 of the fanning-out chamber in the open condition of the piston slide.

26. (New) The separator according to Claim 25, wherein the maximal axial dimension H_1 in the open condition is smaller than an axial dimension of the solids discharge openings.

27. (New) The separator according to Claim 20, wherein the radially exterior annular chamber has a rounded cross-section, so that liquid is swirled therein.

28. (New) The separator according to Claim 26, wherein the maximal axial dimension H_1 in the open condition is 50% smaller than the axial dimension of the solids discharge openings.